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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/091,805	12/10/1998	TOSHIYUKI NAKATA	MATS:006	5347

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EXAMINER

NGUYEN, TUYEN T

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 11/26/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/091,805

Applicant(s)

Nakata et al.

Examiner

Tuyen Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 29, 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-41 is/are pending in the application.
- 4a) Of the above, claim(s) 2, 6, 8, 9, 11, 12, 14-16, 21-28, 30, and 32-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7, 13, 17-19, 29, 31, 40, and 41 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1, 3, 4, 5, 7, 13, 29, and 31, are rejected under 35 U.S.C. 102(b) as being anticipated by applicant admitted prior art of figure 47.

The applicant admitted prior art of figure 47 discloses a choke coil comprising:

- a closing ferrite magnetic core including:
 - a first E-shaped magnetic core [10] having a center magnetic leg [7], outer magnetic legs [8], and a common magnetic yoke [9]; wherein the center magnetic leg has a circle cross section; and
 - a second E-shaped magnetic core [10] in contact with the first magnetic core.
- a magnetic gap provided between the center magnetic leg of the first magnetic core and the second magnetic core;
- a circle-shaped coreless coil [2] including a plate-type wire comprising a flat type wire [1], wherein the coreless coil is disposed around the center magnetic leg and separated therefrom by an insulating layer [11];

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- additional insulating layer [11] provided between the coreless coil and the closing magnetic core; and

- inside and outside plate type terminals [5, 6] respectively coupled to inside and outside ends [3, 4] of the plate-type coreless coil, wherein the terminals is led out side of the closing magnetic core through an opening provided between the first and second magnetic core.

Claim Rejections - 35 USC § 103

3. Claims 17-19 and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art of figure 47 in view of Mitsui et al. [US 4,352,080].

The applicant admitted prior art of figure 47 discloses the instant claimed invention except for specifics structure of the insulating layer cooperate with the common magnetic yoke of the closing magnetic core.

Mitsui et al. discloses a ferrite core and bobbin structure for a choke coil comprising:

- a pair of E-shaped magnetic cores [10], wherein each of the magnetic core [10] comprising a circular boss [12], a pair of outer walls [14, 16] and a pair tapered of base plates [18, 20] with a notch [26] formed therebetween; and

- a bobbin [30] including a cylindrical pipe [30a] and a pair of flange [30b] , wherein the upper flange has a pair of walls [30b'] and the lower flange having a projection [30c] and a pair of terminal base plate [30d], wherein the cylindrical pipe engages the circular boss of the magnetic core.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to use core/bobbin design of Mitsui et al. in applicant admitted prior art of figure 47 for the purpose of facilitating manufacturing of the device.

Regarding claims 40-41, the particular thicknesses of the first and second common yokes would have been an obvious design consideration based on the desired inductance.

Allowable Subject Matter

4. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed 8/29/01 have been fully considered but they are not persuasive.

Applicant argues that the admitted prior art does not teach leading the inside terminal out outside of the closing magnetic core through a notch or a through hole in the common magnetic yoke [37] so this essential claimed element is not shown in the admitted prior art.

The examiner disagrees. Applicant merely claims that the inside terminal is led outside said closing magnetic core through an *opening in the first common magnetic yoke*. The admitted prior art discloses such an opening. Applicant has not claimed, nor has examiner considered, that the opening be a through hole in the common magnetic yoke.

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Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tuyen T. Nguyen whose telephone number is (703) 308-0821.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Gellner, can be reached at (703)308-1721. The fax number for this Group is (703)305-7724.

Any inquiry of a general nature or relating to the status of this application of proceeding should be directed to the Group receptionist whose telephone number is (703)308-0956.

TTN TTN
November 12, 2001


LINCOLN DONOVAN
PRIMARY EXAMINER
GROUP 2100